

REMARKS

This is in response to the Office Action dated March 23, 2005. Claims 1-7 are pending.

Claim 1 stands rejected under 35 U.S.C. Section 102 as being allegedly anticipated by Ahn and Drewery. These Section 102 rejections are respectfully traversed for at least the following reasons.

Claim 1 as amended requires “a semiconductor substrate providing a semiconductor element, and the semiconductor substrate having a thickness that allows the substrate to secure flexibility and/or to have light transparency; and a hard film which covers a part or the entirety of a peripheral side of the semiconductor substrate and which has top and bottom surfaces in approximately the same planes as those of the top and bottom surfaces of the semiconductor substrate, wherein the entire peripheral side of the semiconductor substrate covered with the hard film is processed so as to be perpendicular or substantially perpendicular to the surface of the semiconductor substrate.” For example and without limitation, the instant specification at page 6, lines 20-24 and page 10, lines 1-7, discusses a substrate thickness that allows it to have flexibility and/or transparency. Moreover, Fig. 1 of the instant application illustrates hard film B covering an entire peripheral side of A. The cited art fails to disclose or suggest the aforesaid underlined aspects of amended claim 1.

Ahn fails to disclose or suggest both of: (a) a hard film which covers a part or the entirety of a peripheral side of the semiconductor substrate and which has top and bottom surfaces in approximately the same planes as those of the top and bottom surfaces of the semiconductor substrate, and (b) a semiconductor substrate having a thickness that allows the substrate to secure flexibility and/or to have light transparency. Ahn is unrelated to both of these requirements of claim 1. Ahn in Fig. 7 discloses wafer 12 with nitride film 32 on sidewalls of a

through hole. However, Fig. 7 of Ahn does not disclose or suggest a peripheral side of the substrate being covered by the hard film as required by claim 1. Ahn also fails to disclose or suggest a substrate of a thickness to permit flexibility and/or transparency as called for in claim 1.

Drewery also fails to disclose or suggest a substrate of a thickness to permit flexibility and/or transparency as called for in claim 1. Furthermore, Drewery also does not appear to disclose an entire peripheral side of the semiconductor substrate being covered with the hard film as called for in amended claim 1.

Thus, it is respectfully submitted that claim 1 defines over Ahn and Drewery for the reasons discussed above.

Claim 6 requires “(c) adhering a support substrate to the surface of the semiconductor substrate having the recess defined therein, and making the bottom surface of the semiconductor substrate retrogress until a bottom surface of the hard film is exposed; (d) after making the bottom surface of the semiconductor substrate retrogress until the bottom surface of the hard film is exposed, removing the support substrate from the semiconductor substrate; and (e) after removing the support substrate, dividing the semiconductor substrate into pieces by cutting the hard film.”

Thus, claim 6 has been clarified to state that the support substrate is adhered to the surface of the semiconductor substrate having the recess defined therein (see step c)). Drewery fails to disclose or suggest this, and in fact discloses the opposite side being attached to the active die 182 in Fig. 17. Thus, Drewery teaches the opposite of what claim 6 requires.

Furthermore with respect to claim 6, the claim has been clarified to state that the support substrate is removed after the bottom surface of the semiconductor substrate is made to

retrogress (e.g., via grinding). Drewery fails to disclose or suggest this. In particular, one of ordinary skill would never have removed active die 182 from the Fig. 17 structure, because active die 182 has active elements thereon and is needed for proper functionality.

Additionally with respect to claim 6, it requires that the dividing of the semiconductor substrate into pieces occurs after removing the support substrate. Drewery fails to disclose or suggest this, and in fact teaches the opposite since in Drewery the wafer is divided before a piece thereof is attached to active die 182.

For the aforesaid three reasons, claim 6 also defines over Drewery.

It is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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By: _____

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